

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-52 are pending in this application.

35 U.S.C. § 103

Claims 1-5, 7-12, and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,108,699 to Moiin (hereinafter “Moiin”) in view of U.S. Patent No. 6,336,171 to Coskrey, IV (hereinafter “Coskrey”). Applicant respectfully submits that claims 1-5, 7-12, and 14 are not obvious over Moiin in view of Coskrey.

Moiin is directed to a system and method for modifying membership in a clustered distributed computer system and updating system configuration (see, Title). Moiin discusses distributed computer systems, with constituent computers of the distributed computer systems being referred to as “nodes” (see, col. 1, lines 44-48). Membership in a cluster of nodes in the distributed computer system is determined in a way which permits multiple nodes to simultaneously join or leave the cluster (see, col. 3, lines 58-61). All member nodes of a prospective new cluster determine independently which other nodes are operative and in communication with the member nodes to thereby ascertain membership of the new, prospective cluster (see, col. 9, lines 4-8).

Coskrey is directed to resource protection in a cluster environment (see, Title). Coskrey discusses a server cluster as a group of independent computer systems working together as a single server computer system (see, col. 1, lines 8-10). Coskrey also discusses that server clusters often include shared resources

such as disks (see, col. 1, lines 50-51), and that a filter driver protects volumes of a mass storage device shared by a server cluster (see, col. 2, lines 43-45). More specifically, an operating system includes a file system layer and a filter driver layer (see, col. 5, lines 18-22). The file system layer is operable to generate I/O request packets (IRPs) based upon file system calls made by applications and services executing on a first server (see, col. 5, lines 49-52). The filter driver layer is operable to filter out IRPs directed to shared resources that have not been allocated to the first server (see, col. 6, lines 1-3), the shared resources being volumes of a storage device (see, col. 6, lines 4-10 and col. 5, lines 57-64).

In contrast, claim 1 recites:

One or more computer-readable media having stored thereon a computer program that, when executed by one or more processors of a node in a co-location facility, causes the one or more processors to perform acts including:

beginning and terminating execution of components on the node in response to received commands; and

restricting which other nodes in the co-location facility components that are executing on the node can receive data from and send data to.

Applicant respectfully submits that Moiin in view of Coskrey does not disclose or suggest restricting which other nodes in the co-location facility components that are executing on the node can receive data from and send data to as recited in claim 1.

It appears from pages 2-3 of the May 6 Office Action that Moiin is relied on as teaching this restricting of claim 1. However, Applicant respectfully submits that nowhere is there any discussion or suggestion in Moiin of restricting which other nodes in the co-location facility components that are executing on the node can receive data from and send data to. As discussed above, Moiin is directed to

permitting multiple nodes to simultaneously join or leave a cluster. Nowhere in Moiin is there any discussion or even mention of restricting which other nodes a node can receive data from and send data to. Rather, Moiin states that “a new cluster configuration is negotiated by broadcasting a reconfiguration message to all available node over all available communications links and receiving confirmation from each petitioned node” (see, col. 7, lines 62-65). As Moiin discloses broadcasting a message to all available nodes over all available communications links, and receiving confirmation from those nodes, Applicant respectfully submits that Moiin cannot disclose or suggest restricting which other nodes a node can receive data from and send data to. As such, Applicant respectfully submits that Moiin does not disclose or suggest restricting which other nodes in the co-location facility components that are executing on the node can receive data from and send data to as recited in claim 1.

With respect to Coskrey, Coskrey is not cited as curing, and does not cure, these deficiencies of Moiin. Coskrey, as discussed above, discusses filtering out I/O request packets (IRPs) directed to shared resources (storage devices). Filtering out IRPs directed to storage devices does not disclose or suggest restricting which other nodes a node can receive data from and send data to. As such, Applicant respectfully submits that Coskrey does not disclose or suggest restricting which other nodes in the co-location facility components that are executing on the node can receive data from and send data to as recited in claim 1.

Given that neither Moiin nor Coskrey discloses or suggests restricting which other nodes in the co-location facility components that are executing on the node can receive data from and send data to as recited in claim 1, Applicant

respectfully submits that the combination of Moiin and Coskrey does not disclose or suggest restricting which other nodes in the co-location facility components that are executing on the node can receive data from and send data to as recited in claim 1.

For at least these reasons, Applicant respectfully submits that claim 1 is allowable over Moiin in view of Coskrey.

With respect to claim 2, claim 2 depends from claim 1 and Applicant respectfully submits that claim 2 is allowable over Moiin in view of Coskrey at least because of its dependence on claim 1. Furthermore, claim 2 recites:

One or more computer-readable media as recited in claim 1, wherein a plurality of management devices share management responsibility for the node, and wherein beginning and terminating execution of components on the node is restricted to only one of the plurality of management devices at a time.

Applicant respectfully submits that Moiin in view of Coskrey does not disclose or suggest the plurality of management devices and wherein beginning and terminating execution of components on the node is restricted to only one of the plurality of management devices at a time as recited in claim 2.

In the May 6 Office Action at p. 2, it is asserted that:

Moiin disclosed a plurality of cluster membership monitors (CMM) for sharing management responsibility of a node, each node being controlled by only one of the plurality of CMMs during the execution of reconfiguration processes while the others provided response messages, thus giving one CMM extended management rights and the remaining CMMs more restricted management rights (see column 4, lines 13-21; column 5, lines 18-31; column 5, line 66 through column 6, line 32).

Applicant respectfully submits that the cluster membership monitors of Moiin are not a plurality of management devices as recited in claim 2.

The cluster membership monitors of Moiin do not share management responsibility for a node. The CMM of a node in Moiin attempts to join a cluster by sending out a reconfiguration message (see, col. 5, lines 47-56). Each member node of a cluster responds to the reconfiguration message by broadcasting a responding reconfiguration message (see, col. 6, lines 3-7). However, the CMM attempting to join a cluster is not sharing management responsibility for another node in the cluster. Rather, the CMM is simply sending a message in an attempt to join the cluster. In Moiin, all of the member nodes of a prospective new cluster determine independently which other nodes are operative and in communication with the member nodes to thereby ascertain membership of the new, prospective cluster (see, emphasis added, col. 9, lines 4-8). As such, Applicant respectfully submits that Moiin does not disclose or suggest a plurality of management devices share management responsibility for the node as recited in claim 2.

Furthermore, Moiin states at col. 6, lines 21-25, that:

It should be noted at this point that multiple nodes can join a cluster in a single reconfiguration. For example, node 2 (FIG. 1) can perform the steps of logic flow diagram 400 (FIG. 4) while node 0 performs the steps of logic flow diagram 400 concurrently and independently.

FIG. 4 of Moiin illustrates the steps of a cluster membership monitor attempting to join a cluster (see, col. 5, lines 47-50). Even if the cluster membership monitors of Moiin were a plurality of management devices as recited in claim 2, the cluster membership monitors still would not satisfy the “wherein beginning and terminating execution of components on the node is restricted to only one of the plurality of management devices at a time” language of claim 2. The cluster membership monitors would not satisfy this language of claim 2 because, as cited above, Moiin discusses that multiple nodes can perform the steps of attempting to

join a cluster (FIG. 4) concurrently. If two cluster membership monitors of two nodes can perform the steps of attempting to join a cluster concurrently, then beginning and terminating execution of components on the node would not be restricted to only one of the plurality of management devices at a time. As such, Applicant respectfully submits that Moiin cannot disclose or suggest wherein beginning and terminating execution of components on the node is restricted to only one of the plurality of management devices at a time as recited in claim 2.

With respect to Coskrey, Coskrey is not cited as curing, and does not cure, these deficiencies of Moiin.

For at least these reasons, Applicant respectfully submits that claim 2 is allowable over Moiin in view of Coskrey.

With respect to claims 3-5 and 7, given that claims 3-5 and 7 depend from claim 1, Applicant respectfully submits that claims 3-5 and 7 are likewise allowable over Moiin in view of Coskrey for at least the reasons discussed above with respect to claim 1.

With respect to claim 8, Applicant respectfully submits that, similar to the discussion above regarding claim 1, Moiin in view of Coskrey does not disclose or suggest a system comprising a plurality of node clusters, each node cluster including a plurality of nodes; and wherein each individual node includes a controller to enforce restrictions on which other nodes the individual node can receive data from and which other nodes the individual node can send data to as recited in claim 8. For at least these reasons, Applicant respectfully submits that claim 8 is allowable over Moiin in view of Coskrey.

With respect to claim 12, claim 12 depends from claim 8 and Applicant respectfully submits that claim 12 is allowable over Moiin in view of Coskrey at least because of its dependence on claim 8. Furthermore, Applicant respectfully submits that, similar to the discussion above regarding claim 2, Moiin in view of Coskrey does not disclose or suggest a plurality of management devices share management responsibility for the node; and one of the plurality of management devices is given an extended set of management rights over the node, and the remaining management devices is given a more restricted set of management rights over the node as recited in claim 12. For at least these reasons, Applicant respectfully submits that claim 12 is allowable over Moiin in view of Coskrey.

With respect to claims 9-11 and 14, given that claims 9-11 and 14 depend from claim 8, Applicant respectfully submits that claims 9-11 and 14 are likewise allowable over Moiin in view of Coskrey for at least the reasons discussed above with respect to claim 8.

Claims 6, 13, and 15-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Moiin (hereinafter “Moiin”) in view of Coskrey and further in view of Eur. Pat. App. No. EP0962861 to Ehlinger et al. (hereinafter “Ehlinger”). Applicant respectfully submits that claims 6, 13, and 15-25 are not obvious over Moiin in view of Coskrey and further in view of Ehlinger.

Ehlinger is directed to an improved cluster administration system that includes independent entry arbitration (see, col. 4, lines 29-32). In Ehlinger, a computer cluster typically consists of a number of computers that require direct access to one or more resources, such as a shared data storage device (see, col. 1, lines 7-10). Clusters allow a number of computers or servers to have access to the

same services (see, col. 1, lines 10-11). An independent arbiter controls the admission of computers and servers into a cluster (see, col. 4, lines 41-43). The arbiter handles all entry arbitration for a cluster (see, col. 5, lines 23-24). Since the arbiter is outside the cluster, none of the members of the cluster is burdened with entry arbitration (see, col. 5, lines 24-26).

With respect to claim 6, Applicant respectfully submits that it would not have been obvious to combine Moiin, Coskrey, and Ehlinger because there would have been no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings. In Moiin, as discussed above, all of the member nodes of a prospective new cluster determine independently which other nodes are operative and in communication with the member nodes to thereby ascertain membership of the new, prospective cluster (see, col. 9, lines 4-8). Cluster membership is determined by each of the nodes individually in such a manner that each node arrives at the same result (see, col. 4, lines 13-15). Thus, it is the nodes themselves in Moiin that are determining whether a new node is to be added to a cluster. Ehlinger, on the other hand, specifically teaches away from Moiin in that Ehlinger specifically states that the arbiter, which is outside the cluster, handles all entry arbitration for the cluster (see, col. 5, lines 23-24). The burden of entry arbitration is placed on the arbiter, not on the members of the cluster (see, col. 5, lines 24-26).

Since Moiin and Ehlinger are directed to two opposite ways of determining cluster membership (Moiin placing the burden on the individual nodes in the cluster, and Ehlinger specifically removing such burden from the individual nodes

in the cluster), Applicant respectfully submits that it would not have been obvious to combine Moiin and Ehlinger.

Furthermore, even if Moiin, Coskrey, and Ehlinger were combined, Applicant respectfully submits that the combination of Moiin, Coskrey, and Ehlinger does not disclose or suggest the features of claim 6. Claim 6 depends from claim 1 and Applicant respectfully submits that claim 6 is allowable over Moiin in view of Coskrey at least because of its dependence on claim 1. Applicant respectfully submits that Ehlinger is not cited as curing, and does not cure, the deficiencies of Moiin in view of Coskrey discussed above with respect to claim 1. Thus, at least because of its dependency on claim 1, Applicant respectfully submits that claim 6 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

In addition, claim 6 recites:

One or more computer-readable media as recited in claim 1, wherein the beginning and terminating execution of components comprises beginning and termination execution of the components based on commands received from an operations console at a location remote from the co-location facility.

Applicant respectfully submits that there is no disclosure or suggestion in Moiin in view of Coskrey and further in view of Ehlinger of commands received from an operations console at a location remote from the co-location facility as recited in claim 6.

Ehlinger discusses that the arbiter is implemented on an independent computing device that is independent of the cluster of computing devices (see, col. 3, lines 7-9), and that the arbiter is outside the cluster (see, col. 5, lines 23-26). However, nowhere is there any discussion that the arbiter is at a location that is

remote from a co-location facility. Applicant respectfully submits that simply discussing that the arbiter is outside of or independent of a cluster of computing devices does not disclose or suggest that the arbiter is remote from a co-location facility where the cluster is. Absent any such discussion or mention, Applicant respectfully submits that Ehlinger cannot disclose or suggest commands received from an operations console at a location remote from the co-location facility as recited in claim 6.

With respect to Moiin and Coskrey, Moiin in view of Coskrey is not cited as curing, and does not cure, these deficiencies of Ehlinger.

For at least these reasons, Applicant respectfully submits that claim 6 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

With respect to claim 13, Applicant respectfully submits that, as discussed above with reference to claim 6, it would not have been obvious to combine Moiin and Ehlinger.

Furthermore, even if Moiin, Coskrey, and Ehlinger were combined, Applicant respectfully submits that the combination of Moiin, Coskrey, and Ehlinger does not disclose or suggest the features of claim 13. Claim 13 depends from claim 8 and Applicant respectfully submits that claim 13 is allowable over Moiin in view of Coskrey at least because of its dependence on claim 8. Applicant respectfully submits that Ehlinger is not cited as curing, and does not cure, the deficiencies of Moiin in view of Coskrey discussed above with respect to claim 8. Thus, at least because of its dependency on claim 8, Applicant respectfully submits that claim 13 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

For at least these reasons, Applicant respectfully submits that claim 13 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

With respect to claim 15, Applicant respectfully submits that, as discussed above with reference to claim 6, it would not have been obvious to combine Moiin and Ehlinger.

Furthermore, even if Moiin, Coskrey, and Ehlinger were combined, Applicant respectfully submits that the combination of Moiin, Coskrey, and Ehlinger does not disclose or suggest the features of claim 15.

Claim 15 recites:

A method comprising:

receiving, at a node in a co-location facility, a first request from a first control console that is local to the co-location facility;
implementing the first request;
receiving, at the node, a second request from a second control console that is remote from the co-location facility; and
implementing the second request.

Applicant respectfully submits that, similar to the discussion above regarding claim 6, Moiin in view of Coskrey and further in view of Ehlinger does not disclose or suggest receiving, at a node in a co-location facility, a second request from a second control console that is remote from the co-location facility as recited in claim 15.

Furthermore, Applicant respectfully submits that there is no disclosure or suggestion in Moiin in view of Coskrey and further in view of Ehlinger of receiving, at a node in a co-location facility, requests from two control consoles, one being local to the co-location facility and the other being remote from the co-location facility.

As discussed above, Moiin and Ehlinger are directed to two opposite ways of determining cluster membership (Moiin placing the burden on the individual nodes in the cluster, and Ehlinger specifically removing such burden from the individual nodes in the cluster). As such, Applicant respectfully submits that there is no disclosure or suggestion to use these mechanisms of Moiin and Ehlinger together. Therefore, Applicant respectfully submits that these mechanisms cannot be the two control consoles as recited in claim 15.

For at least these reasons, Applicant respectfully submits that claim 15 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

With respect to claims 16, 17, and 19, given that claims 16, 17, and 19 depend from claim 15, Applicant respectfully submits that claims 16, 17, and 19 are likewise allowable over Moiin in view of Coskrey and further in view of Ehlinger for at least the reasons discussed above with respect to claim 15.

With respect to claim 18, claim 18 depends from claim 15 and Applicant respectfully submits that claim 18 is allowable over Moiin in view of Coskrey and further in view of Ehlinger at least because of its dependence on claim 15.

Furthermore, claim 18 recites:

A method as recited in claim 15, wherein the first request corresponds to one of a first set of rights that are granted to the first control console, wherein the second request corresponds to one of a second set of rights that are granted to the second control console, and wherein the first set of rights is more restricted than the second set of rights.

Applicant respectfully submits that there is no discussion or even mention in Moiin, Coskrey, or Ehlinger of two sets of rights granted to two control consoles, wherein one of the set of rights is more restricted than the other set of

rights. Furthermore, there is no indication in the May 6 Office Action of where these features of claim 18 are allegedly disclosed by Moiin, Coskrey, or Ehlinger. Absent any such mention in Moiin, Coskrey, and Ehlinger of two sets of rights granted to two control consoles, wherein one of the set of rights is more restricted than the other set of rights, Applicant respectfully submits that Moiin in view of Coskrey and further in view of Ehlinger cannot disclose or suggest claim 18.

For at least these reasons, Applicant respectfully submits that claim 18 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

With respect to claim 20, Applicant respectfully submits that, as discussed above with reference to claim 6, it would not have been obvious to combine Moiin and Ehlinger. As such, Applicant respectfully submits that claim 20 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

With respect to claim 21, claim 21 depends from claim 20 and Applicant respectfully submits that claim 21 is allowable over Moiin in view of Coskrey and further in view of Ehlinger at least because of its dependence on claim 20.

Furthermore, claim 21 recites:

One or more computer-readable media as recited in claim 20, wherein the establishing comprises including a filter that restricts access to another node that is in the facility but that is not in the server cluster.

Applicant respectfully submits that, similar to the discussion above regarding claim 1, Moiin in view of Coskrey does not disclose or suggest a filter that restricts access to another node that is in the facility but that is not in the server cluster as recited in claim 21. Furthermore, Ehlinger is not cited as curing, and does not cure, this deficiency of Moiin in view of Coskrey. As such, Applicant

respectfully submits that claim 21 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

For at least these reasons, Applicant respectfully submits that claim 21 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

With respect to claim 22, claim 22 depends from claim 20 and Applicant respectfully submits that claim 22 is allowable over Moiin in view of Coskrey and further in view of Ehlinger at least because of its dependence on claim 20.

Furthermore, claim 22 recites:

One or more computer-readable media as recited in claim 20, wherein the establishing comprises generating a plurality of filters identifying only other nodes in the server cluster as being permissible to access.

Applicant respectfully submits that, similar to the discussion above regarding claim 1, Moiin in view of Coskrey does not disclose or suggest generating a plurality of filters identifying only other nodes in the server cluster as being permissible to access as recited in claim 22. Furthermore, Ehlinger is not cited as curing, and does not cure, this deficiency of Moiin in view of Coskrey. As such, Applicant respectfully submits that claim 22 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

For at least these reasons, Applicant respectfully submits that claim 22 is allowable over Moiin in view of Coskrey and further in view of Ehlinger.

With respect to claims 23-25, given that claims 23-25 depend from claim 20, Applicant respectfully submits that claims 23-25 are likewise allowable over Moiin in view of Coskrey and further in view of Ehlinger for at least the reasons discussed above with respect to claim 15.

Claims 28-52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Moiin (hereinafter “Moiin”) in view of U.S. Patent No. 6,125,447 to Gong (hereinafter “Gong”). Applicant respectfully submits that claims 28-52 are not obvious over Moiin in view of Gong.

Gong is directed to protection domains to provide security in a computer system (see, Title). As discussed in the abstract of Gong, as new code arrives at a computer, a determination is assigned to a protection domain based on the source from which the code is received. The protection domain establishes the permissions that apply to the code. In embodiments where the code to be executed by the computer belongs to object classes, an association is established between the protection domains and the classes of objects. When an object requests an action, a determination is made as to whether the action is permitted based on the class to which the object belongs and the association between classes and protection domains. The implementation of protection domains is provided by computer system 100 of Fig. 1 in response to the processor of the computer system executing sequences of instructions contained in main memory of the computer system (see, Fig. 1, col. 4, lines 58-63).

Applicant respectfully submits that it would not have been obvious to combine Moiin and Gong because there would have been no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings. In the May 6 Office Action at pp. 5-6, it appears that the cluster membership monitors (CMMs) of Moiin are being relied on as disclosing the plurality of management agents of claim 26. The May 6 Office Action goes on to state, at p. 7, that “It

would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Moiin and Gong to provide domains in which interactions between management agents associated with each domain were mediated by a controller". Applicant respectfully disagrees.

Moiin, as discussed above, is directed to determining membership in a cluster of nodes in a distributed computer system in a way which permits multiple nodes to simultaneously join or leave the cluster, and with all member nodes of a prospective new cluster determining independently which other nodes are operative and in communication with the member nodes to thereby ascertain membership of the new, prospective cluster. Gong, on the other hand, is directed to protection domains to provide security in a computer system.

Applicant respectfully submits that nowhere in Moiin is there any mention or suggestion of requiring protection domains to provide security as discussed in Gong. There is no mention in Moiin that any mechanism like the protection domains of Gong are needed, or even that the security issues addressed by such protection domains need to be considered in determining membership in a cluster of nodes. Furthermore, Applicant respectfully submits that nowhere in Gong is there any mention or suggestion of using the protection domains to provide security when determining membership in a cluster of nodes. Gong is directed to using protection domains when handling a source code stream from zero or more untrusted sources or zero or more trusted sources (see, Fig. 2, and col. 7, line 62 – col. 8, line 37), not to handling a reconfiguration message to join a cluster.

As there is no mention in Moiin that any mechanism like the protection domains of Gong are needed, or even that the security issues addressed by such

protection domains need to be considered in determining membership in a cluster of nodes, and there is no mention in Gong of using the protection domains to provide security when determining membership in a cluster of nodes, Applicant respectfully submits that there would have been no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine Moiin and Gong.

Furthermore, even if Moiin and Gong were combined, Applicant respectfully submits that the combination of Moiin and Gong does not disclose or suggest claim 26.

In the May 6 Office Action at pp. 5-6, it appears that the cluster membership monitors (CMMs) of Moiin are being relied on as disclosing the plurality of management agents of claim 26. Applicant respectfully submits, however, that the CMMs of Moiin are not a plurality of management agents responsible for managing the system as recited in claim 26. Similar to the discussion above regarding claim 2, the CMM of a node in Moiin attempts to join a cluster by sending out a reconfiguration message (see, col. 5, lines 47-56), and each member node of a cluster responds to the reconfiguration message by broadcasting a responding reconfiguration message (see, col. 6, lines 3-7). However, the CMM attempting to join a cluster is not responsible for managing a system. Rather, the CMM is simply sending a message in an attempt to join the cluster. As such, Applicant respectfully submits that the CMMs of Moiin are not a plurality of management agents responsible for managing the system as recited in claim 26.

For at least these reasons, Applicant respectfully submits that claim 26 is allowable over Moiin in view of Gong.

With respect to claim 27, claim 27 depends from claim 26 and Applicant respectfully submits that claim 27 is allowable over Moiin in view of Gong at least because of its dependence on claim 26.

Furthermore, claim 27 recites:

A system as recited in claim 26, wherein the controller is further to terminate execution of a software engine in the system in response to a request from a management device corresponding to one of the plurality of management agents.

Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest wherein the controller is further to terminate execution of a software engine in the system in response to a request from a management device corresponding to one of the plurality of management agents as recited in claim 27.

As discussed above, the cluster membership monitors (CMMs) of Moiin are being relied on as disclosing the plurality of management agents of claim 26. Thus, in order for Moiin to satisfy the language of claim 27, a controller would need to terminate execution of a software engine in the system in response to a request from a management device corresponding to one of the CMMs. However, as discussed above, the CMMs of Moiin are used to attempt to join a cluster. The CMMs of Moiin, in the petitioned nodes, are also used to respond to attempts to join a cluster. However, nowhere in Moiin is there any mention of execution of a software engine in a system being terminated in response to a request from a management device corresponding to a CMM. Absent such mention, Applicant respectfully submits that Moiin cannot disclose or suggest wherein the controller is further to terminate execution of a software engine in the system in response to

a request from a management device corresponding to one of the plurality of management agents as recited in claim 27.

With respect to Gong, Gong is not cited as curing, and does not cure, these deficiencies of Moiin.

For at least these reasons, Applicant respectfully submits that claim 27 is allowable over Moiin in view of Gong.

With respect to claim 31, claim 31 depends indirectly from claim 26 and Applicant respectfully submits that claim 31 is allowable over Moiin in view of Gong at least because of its dependence on claim 26.

Furthermore, claim 31 recites:

A system as recited in claim 29, wherein the first set of rights includes: the right to create new ownership domains, the right to access system memory, the right to access a mass storage device of the system, the right to modify filters in the system, the right to start execution of software engines in the system, the right to stop execution of software engines in the system, the right to debug software engines in the system, the right to change authentication credentials for the ownership domain, the right to modify a storage key for the ownership domain, and the right to subscribe to events engine events, machine events, and packet filter events at the system.

Applicant respectfully submits that neither Moiin nor Gong discloses or suggests the set of rights as recited in claim 31. Furthermore, the May 6 Office Action does not include any indication of where in either Moiin or Gong the set of rights as recited in claim 31 is allegedly disclosed.

Gong does disclose that typically, permissions involve an authorization to perform an access to a computer resource in a particular manner (see, col. 8, lines 46-47). Gong further states that an example of an authorization is an authorization to “write” to a particular directory in a file system (see, col. 8, lines 47-49).

However, nowhere is the following list of rights, as recited in claim 31, disclosed or suggest in Gong:

- the right to create new ownership domains,
- the right to access system memory,
- the right to access a mass storage device of the system,
- the right to modify filters in the system,
- the right to start execution of software engines in the system,
- the right to stop execution of software engines in the system,
- the right to debug software engines in the system,
- the right to change authentication credentials for the ownership domain,
- the right to modify a storage key for the ownership domain, and
- the right to subscribe to events engine events, machine events, and packet filter events at the system.

As neither Moiin nor Gong even mentions these rights as recited in claim 31, Applicant respectfully submits that 31 is allowable over Moiin in view of Gong.

With respect to claim 32, claim 32 depends indirectly from claim 26 and Applicant respectfully submits that claim 32 is allowable over Moiin in view of Gong at least because of its dependence on claim 26. Furthermore, as discussed above with reference to claim 31, Gong does disclose that typically, permissions involve an authorization to perform an access to a computer resource in a particular manner. However, Applicant respectfully submits that nowhere in either Moiin or Gong is there any mention of the following rights:

- the right to revoke an existing ownership domain,

- the right to modify filters in the system,
- the right to change authentication credentials for the ownership domain, and
- the right to subscribe to machine events and packet filter events at the system.

As neither Moiin nor Gong even mentions these rights as recited in claim 32, Applicant respectfully submits that 32 is allowable over Moiin in view of Gong.

With respect to claim 33, claim 33 depends indirectly from claim 26 and Applicant respectfully submits that claim 33 is allowable over Moiin in view of Gong at least because of its dependence on claim 26. Furthermore, as discussed above with reference to claim 31, Gong does disclose that typically, permissions involve an authorization to perform an access to a computer resource in a particular manner. However, Applicant respectfully submits that nowhere in either Moiin or Gong is there any mention of the following rights:

- the right to create new ownership domains,
- the right to access system memory,
- the right to access a mass storage device of the system, and
- the right to modify filters in the system.

As neither Moiin nor Gong even mentions these rights as recited in claim 33, Applicant respectfully submits that 33 is allowable over Moiin in view of Gong.

With respect to claim 34, claim 34 depends indirectly from claim 26 and Applicant respectfully submits that claim 34 is allowable over Moiin in view of Gong at least because of its dependence on claim 26. Furthermore, as discussed above with reference to claim 31, Gong does disclose that typically, permissions

involve an authorization to perform an access to a computer resource in a particular manner. However, Applicant respectfully submits that nowhere in either Moiin or Gong is there any mention of the following rights:

- the right to revoke an existing ownership domain
- the right to modify filters in the system, including the right to add a filter that cannot be subverted by a management agent assigned to the top-level ownership domain.

As neither Moiin nor Gong even mentions these rights as recited in claim 34, Applicant respectfully submits that 34 is allowable over Moiin in view of Gong.

With respect to claim 35, claim 35 depends indirectly from claim 26 and Applicant respectfully submits that claim 35 is allowable over Moiin in view of Gong at least because of its dependence on claim 26.

Furthermore, claim 35 recites:

A system as recited in claim 29, wherein the controller allows a device corresponding to any one of the other ownership domains to revoke the top-level ownership domain, and wherein the controller erases a system memory during the revocation process.

Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest wherein the controller allows a device corresponding to any one of the other ownership domains to revoke the top-level ownership domain, and wherein the controller erases a system memory during the revocation process as recited in claim 35.

Moiin makes no mention of domains, and as discussed above, Gong discusses protection domains. However, nowhere in Gong is there any discussion or mention of allowing a device corresponding to one domain to revoke another domain, much less of erasing a system memory during the revocation process. As

there is not even a mention of such revocation or erasing in Moiin or Gong, Applicant respectfully submits that the combination of Moiin and Gong cannot disclose or suggest wherein the controller allows a device corresponding to any one of the other ownership domains to revoke the top-level ownership domain, and wherein the controller erases a system memory during the revocation process as recited in claim 35.

For at least these reasons, Applicant respectfully submits that claim 35 is allowable over Moiin in view of Gong.

With respect to claim 36, claim 36 depends from claim 26 and Applicant respectfully submits that claim 36 is allowable over Moiin in view of Gong at least because of its dependence on claim 26.

Furthermore, claim 36 recites:

A system as recited in claim 26, wherein only one of the plurality of management agents can correspond to a top-level ownership domain at a time, and wherein any of the other management agents can revoke the top-level ownership domain.

Similar to the discussion above regarding claim 35, Applicant respectfully submits that there is no mention in Moiin or Gong of a management agent being able to revoke an ownership domain as recited in claim 36. For at least these reasons, Applicant respectfully submits that claim 36 is allowable over Moiin in view of Gong.

With respect to claim 37, claim 37 depends from claim 26 and Applicant respectfully submits that claim 37 is allowable over Moiin in view of Gong at least because of its dependence on claim 26.

Furthermore, claim 37 recites:

A system as recited in claim 26, wherein only one of the plurality of management agents can correspond to a top-level ownership domain at a time, and wherein the one management agent can create a new ownership domain for a new management agent, and wherein the new ownership domain becomes the new top-level ownership domain.

Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest wherein only one of the plurality of management agents can correspond to a top-level ownership domain at a time, and wherein the one management agent can create a new ownership domain for a new management agent, and wherein the new ownership domain becomes the new top-level ownership domain as recited in claim 37.

Moiin makes no mention of domains, and as discussed above, Gong discusses protection domains. However, nowhere in Gong is there any discussion or mention of a top-level ownership domain that corresponds to only one of the plurality of management agents, and of that one management agent being able to create a new ownership domain for a new management agent. As there is not even a mention of such a top-level ownership domain that corresponds to only one of the plurality of management agents, or of the management agent being able to create a new ownership domain for a new management agent in Moiin or Gong, Applicant respectfully submits that the combination of Moiin and Gong cannot disclose or suggest claim 37.

For at least these reasons, Applicant respectfully submits that claim 37 is allowable over Moiin in view of Gong.

With respect to claim 38, claim 38 depends from claim 26 and Applicant respectfully submits that claim 38 is allowable over Moiin in view of Gong at least because of its dependence on claim 26.

Furthermore, claim 38 recites:

A system as recited in claim 26, wherein only one of the plurality of management agents can correspond to a top-level ownership domain at a time, wherein which of the plurality of management agents corresponds to the top-level ownership domain at any given time can vary over time, and wherein the controller erases a system memory each time a change occurs in which of the plurality of management agents corresponds to the top-level ownership domain.

Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest wherein only one of the plurality of management agents can correspond to a top-level ownership domain at a time, wherein which of the plurality of management agents corresponds to the top-level ownership domain at any given time can vary over time, and wherein the controller erases a system memory each time a change occurs in which of the plurality of management agents corresponds to the top-level ownership domain as recited in claim 38.

Moiin makes no mention of domains, and as discussed above, Gong discusses protection domains. However, nowhere in Gong is there any discussion or mention of a top-level ownership domain that corresponds to only one of the plurality of management agents, varying which management agent corresponds to the top-level ownership domain at any given time, or erasing a system memory each time a change occurs in which of the plurality of management agents corresponds to the top-level ownership domain. As there is not even a mention of such notions in Moiin or Gong, Applicant respectfully submits that the combination of Moiin and Gong cannot disclose or suggest wherein only one of the plurality of management agents can correspond to a top-level ownership domain at a time, wherein which of the plurality of management agents

corresponds to the top-level ownership domain at any given time can vary over time, and wherein the controller erases a system memory each time a change occurs in which of the plurality of management agents corresponds to the top-level ownership domain as recited in claim 38.

For at least these reasons, Applicant respectfully submits that claim 38 is allowable over Moiin in view of Gong.

With respect to claims 28-30 and 39, given that claims 28-30 and 39 depend from claim 26, Applicant respectfully submits that claims 28-30 and 39 are likewise allowable over Moiin in view of Gong for at least the reasons discussed above with respect to claim 26.

With respect to claim 40, Applicant respectfully submits that, as discussed above with regard to claim 26, it would not have been obvious to combine Moiin and Gong. Furthermore, even if Moiin and Gong were combined, Applicant respectfully submits that, similar to the discussion above regarding claim 26, Moiin in view of Gong does not disclose or suggest wherein each of the plurality of management agents is responsible for managing at least a portion of a computer as recited in claim 40.

For at least these reasons, Applicant respectfully submits that claim 40 is allowable over Moiin in view of Gong.

With respect to claim 42, claim 42 depends from claim 40 and Applicant respectfully submits that claim 42 is allowable over Moiin in view of Gong at least because of its dependence on claim 40. Furthermore, similar to the discussion above regarding claim 31, Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest wherein the extended set of rights includes: the

right to create new ownership domains, the right to access system memory, the right to access a mass storage device of the system, the right to modify filters in the system, the right to start execution of software engines in the system, the right to stop execution of software engines in the system, the right to debug software engines in the system, the right to change authentication credentials for the ownership domain, the right to modify a storage key for the ownership domain, and the right to subscribe to events engine events, machine events, and packet filter events at the system as recited in claim 42. For at least these reasons, Applicant respectfully submits that claim 42 is allowable over Moiin in view of Gong.

With respect to claim 43, claim 43 depends from claim 40 and Applicant respectfully submits that claim 43 is allowable over Moiin in view of Gong at least because of its dependence on claim 40. Furthermore, similar to the discussion above regarding claim 32, Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest wherein the more limited set of rights includes: the right to revoke an existing ownership domain, the right to modify filters in the system, the right to change authentication credentials for the ownership domain, and the right to subscribe to machine events and packet filter events at the system as recited in claim 43. For at least these reasons, Applicant respectfully submits that claim 43 is allowable over Moiin in view of Gong.

With respect to claim 44, claim 44 depends from claim 40 and Applicant respectfully submits that claim 44 is allowable over Moiin in view of Gong at least because of its dependence on claim 40. Furthermore, similar to the discussion above regarding claim 33, Applicant respectfully submits that Moiin in view of

Gong does not disclose or suggest wherein the extended set of rights includes: the right to create new ownership domains, the right to access system memory, the right to access a mass storage device of the system, and the right to modify filters in the system as recited in claim 44. For at least these reasons, Applicant respectfully submits that claim 44 is allowable over Moiin in view of Gong.

With respect to claim 45, claim 45 depends from claim 40 and Applicant respectfully submits that claim 45 is allowable over Moiin in view of Gong at least because of its dependence on claim 40. Furthermore, similar to the discussion above regarding claim 34, Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest wherein the more limited set of rights includes: the right to revoke an existing ownership domain and the right to modify filters in the system, including the right to add a filter that cannot be subverted by a management agent assigned to the top-level ownership domain as recited in claim 45. For at least these reasons, Applicant respectfully submits that claim 45 is allowable over Moiin in view of Gong.

With respect to claim 46, claim 46 depends from claim 40 and Applicant respectfully submits that claim 46 is allowable over Moiin in view of Gong at least because of its dependence on claim 40. Furthermore, similar to the discussion above regarding claim 35, Applicant respectfully submits nowhere in Moiin or Gong is there any discussion or suggestion that one management agent corresponds to a top-level ownership domain, and wherein any of the other management agents can revoke the rights of the one management agent as recited in claim 46. For at least these reasons, Applicant respectfully submits that claim 46 is allowable over Moiin in view of Gong.

With respect to claim 48, claim 48 depends from claim 40 and Applicant respectfully submits that claim 48 is allowable over Moiin in view of Gong at least because of its dependence on claim 40.

Furthermore, claim 48 recites:

A method as recited in claim 40, further comprising:
allowing which of the plurality of management agents has the extended set of rights to change over time; and
erasing a system memory each time a change occurs in which of the plurality of management agents has the extended set of rights.

Applicant respectfully submits that Moiin in view of Gong does not disclose or suggest allowing which of the plurality of management agents has the extended set of rights to change over time, and erasing a system memory each time a change occurs in which of the plurality of management agents has the extended set of rights as recited in claim 48.

Moiin makes no mention of a set of rights, and as discussed above, Gong discusses protection domains. However, nowhere in Gong is there any discussion or mention of allowing which of a plurality of management agents has the extended set of rights to change over time, much less of erasing a system memory each time a change occurs in which of the plurality of management agents has the extended set of rights. As there is not even a mention of such notions in Moiin or Gong, Applicant respectfully submits that the combination of Moiin and Gong cannot disclose or suggest allowing which of the plurality of management agents has the extended set of rights to change over time, and erasing a system memory each time a change occurs in which of the plurality of management agents has the extended set of rights as recited in claim 48.

For at least these reasons, Applicant respectfully submits that claim 48 is allowable over Moiin in view of Gong.

With respect to claim 49, claim 49 depends from claim 40 and Applicant respectfully submits that claim 49 is allowable over Moiin in view of Gong at least because of its dependence on claim 40. Furthermore, similar to the discussion above regarding claim 27, Moiin in view of Gong does not disclose or suggest terminating execution of a software engine in the computer in response to a request from a management device corresponding the one management agent having the extended set of rights as recited in claim 49. For at least these reasons, Applicant respectfully submits that claim 49 is allowable over Moiin in view of Gong.

With respect to claims 41, 47, and 50-52, given that claims 41, 47, and 50-52 depend from claim 40, Applicant respectfully submits that claims 41, 47, and 50-52 are likewise allowable over Moiin in view of Gong for at least the reasons discussed above with respect to claim 40.

Applicant respectfully requests that the §103 rejections be withdrawn.

Conclusion

Claims 1-52 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

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